WHAT IS CLAIMED IS:

1. An image pickup apparatus comprising:

a plurality of image pickup portions for receiving different wavelength components of object light; and

a plurality of optical systems for guiding the object light to said plurality of image pickup portions, respectively, each of said plurality of optical systems having a filtering function whose transmission factor becomes smaller as the distance from an optical axis thereof becomes longer.

2. An image pickup apparatus according to claim 1, wherein said different wavelength components of the object light are representative wavelengths of light of different spectral distributions, respectively.

3. An image pickup apparatus according to claim 2, wherein one of said different spectral distributions is a spectral distribution including a peak wavelength of a luminosity factor.

4. An image pickup apparatus according to claim 1, wherein one of said different wavelength components of the object light is included in a spectral distribution including a peak wavelength of a luminosity factor.

5. An image pickup apparatus according to claim 1, wherein said different wavelength components are two different color components among red, green, and blue.

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6. An image pickup apparatus according to claim 1, wherein said plurality of optical systems comprise a filter for extracting said different wavelength components, respectively.

7. An image pickup apparatus according to claim 1, wherein each of said plurality of optical systems comprises a single lens.

8. An image pickup apparatus according to claim 7, wherein said single lens is integrally formed of a glass material or a resin material.

9. An image pickup apparatus according to claim 8 further comprising:

a light shielding layer provided between said integrally formed single lenses.

10. An image pickup apparatus according to claim 1, wherein each of said plurality of optical systems comprises a single lens provided with an infrared radiation cutting filter.

11. An image pickup apparatus according to claim 1, wherein each of said plurality of optical systems comprises photochromic glass.

12. An image pickup apparatus according to claim 1, wherein each of said plurality of optical systems comprises a color purity correction filter.

13. An image pickup apparatus according to claim 1, wherein, when a virtual object distance D [m] is defined as a function of an image pickup angle θ [°] of said plurality of optical systems to be D = 1.4/tan (θ/2), an interval between the optical axes of said plurality of optical systems is set such that change in an interval between an object image received by one of said plurality of image pickup portions and an object image received by another of said plurality of image pickup portions between when an object is at said virtual distance and when the object is at infinity is smaller than a pixel pitch of said image pickup portions multiplied by two.

14. An image pickup apparatus according to claim 1, wherein said plurality of image pickup portions are integrally formed.

15. An image pickup apparatus according to claim

1, wherein said plurality of image pickup portions are formed in a plane shape.

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16. An image pickup apparatus according to claim 1, further comprising:

a plurality of openings for taking in external light through said plurality of optical systems.

17. An image pickup apparatus comprising:

a plurality of image pickup portions for receiving different wavelength components of object light; and

a plurality of optical systems for guiding the object light to said plurality of image pickup portions, respectively, at least one of said plurality of optical systems having a filtering function whose transmission factor becomes smaller as the distance from an optical axis thereof becomes longer, and at least another of said plurality of optical systems not having a filtering function whose transmission factor becomes smaller as the distance from an optical axis thereof becomes longer.

18. An image pickup apparatus according to claim 17, wherein said different wavelength components of the object light are representative wavelengths of light of different spectral distributions, respectively.

19. An image pickup apparatus according to claim 18, wherein one of said different spectral distributions is a spectral distribution including a peak wavelength of a luminosity factor.

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20. An image pickup apparatus according to claim 17, wherein one of said different wavelength components of the object light is included in a spectral distribution including a peak wavelength of a luminosity factor.

21. An image pickup apparatus according to claim 17, wherein said different wavelength components are two different color components among red, green, and blue.

22. An image pickup apparatus according to claim 17, wherein said plurality of optical systems comprise filters for extracting said different wavelength components, respectively.

23. An image pickup apparatus according to claim 17, wherein each of said plurality of optical systems comprises a single lens.

24. An image pickup apparatus according to claim 23, wherein said single lenses are integrally formed of

a glass material or a resin material.

25. An image pickup apparatus according to claim 24 further comprising:

a light shielding layer provided between said integrally formed single lenses.

26. An image pickup apparatus according to claim 17, wherein each of said plurality of optical systems comprises a single lens provided with an infrared radiation cutting filter.

27. An image pickup apparatus according to claim 17, wherein each of said plurality of optical systems comprises photochromic glass.

28. An image pickup apparatus according to claim 17, wherein each of said plurality of optical systems comprises a color purity correction filter.

29. An image pickup apparatus according to claim 17, wherein, when a virtual object distance D [m] is defined as a function of an image pickup angle θ[°] of said plurality of optical systems to be $D = 1.4/\tan(\theta/2)$, an interval between the optical axes of said plurality of optical systems is set such that change in an interval between an object image received by one of

said plurality of image pickup portions and an object image received by another of said plurality of image pickup portions between when an object is at said virtual distance and when the object is at infinity is smaller than a pixel pitch of said image pickup portions multiplied by two.

30. An image pickup apparatus according to claim 17, wherein said plurality of image pickup portions are integrally formed.

31. An image pickup apparatus according to claim 17, wherein said plurality of image pickup portions are formed in a plane shape.

32. An image pickup apparatus according to claim 17, further comprising:

a plurality of openings for taking in external light through said plurality of optical systems.